

What is claimed is:

1. A magnetic recording medium, comprising:
a tape-shaped non-magnetic substrate; and
5 a magnetic layer having an oblique columnar structure formed through a vacuum thin film forming technique on a surface of said non-magnetic substrate, wherein
said magnetic layer includes a first ferromagnetic metal thin film, and a second ferromagnetic metal thin film formed on said first
10 ferromagnetic metal thin film and whose direction of growth of its oblique columnar structure is opposite that of said first ferromagnetic metal thin film,
Mr· δ , which is a product of residual magnetization Mr and film thickness δ , satisfies $3 \text{ (mA)} \leq \text{Mr} \cdot \delta < 30 \text{ (mA)}$,
15 thickness d_1 of said first ferromagnetic metal thin film and thickness d_2 of said second ferromagnetic metal thin film satisfy $40 \text{ (nm)} \leq d_1 + d_2 \leq 100 \text{ (nm)}$ as well as $1/2 \leq d_2/d_1 \leq 1$, and
coercivity Hc of said magnetic layer satisfies $H_c \geq 100 \text{ (kA/m)}$.
- 20 2. The magnetic recording medium according to claim 1, wherein said Mr· δ satisfies $12 \text{ (mA)} \leq \text{Mr} \cdot \delta < 30 \text{ (mA)}$, and recorded signals are reproduced with a magnetoresistive head.
3. The magnetic recording medium according to claim 1, wherein said
25 Mr· δ satisfies $3 \text{ (mA)} \leq \text{Mr} \cdot \delta < 12 \text{ (mA)}$, and recorded signals are reproduced with a giant magnetoresistive head.
4. The magnetic recording medium according to claim 1, further comprising a plurality of tracks arranged in parallel in the longitudinal
30 direction of said magnetic recording medium, wherein recording and reproducing of signals is performed in a linear method.

5. The magnetic recording medium according to claim 1, further comprising a protective layer on said magnetic layer.

5 6. The magnetic recording medium according to claim 5, wherein said protective layer includes a diamond-like carbon film.